

Engage and Explore

For each lesson, follow the steps to engage students in educational content.

Lesson I

- 1. Students read the **Dairy Commodity Fact Sheet** and complete the **worksheet**.
- 2. Students watch "Farm to You" (3:51–12:05) and answer the following questions OR complete the EdPuzzle with the same video and questions.

	Question	Answer Key
I	Female cattle are called	cows
2	What are the 4 steps in the cycle of how cows make milk?	First, energy from the sun is absorbed by the plants. Second, the cows eat plants and drink water to break down the food. Third, the cows absorb the energy, which goes down to their udder, where milk is made. Last, people drink milk for energy and nutrients.
3	How many stomach compartments do cows have?	4
4	How do cows break down their food?	By chewing the cud and using their stomach compartments.
5	How are cows great recyclers and upcyclers?	Cows are great recyclers and upcyclers because they eat byproducts, which keeps the byproducts from going into the landfill.
6	What is pasteurization?	The process of heating liquid at a high temperature for a short amount of time to kill any germs and keep it safe to drink.
7	What is homogenization?	The process of breaking milk into smaller particles to make it smooth so the cream doesn't separate and float to the top.





Lesson 2

1. Test students' dairy IQ. Answer questions in pairs, groups, or as a class.

	Cheese		
I	True or False? Nearly half of the dairy milk produced in California is turned into cheese.	True	
2	True or False? There are now hundreds of cheese varieties around the globe, including 300 in the United States.	True	
3	True or False? A cheddar cheese stick contains about as much calcium as a glass of milk.	True! 306 mg of calcium to build strong bones and teeth.	
4	What is the most popular cheese recipe in America?	Macaroni and cheese	
	Milk		
I	On average, how many gallons of milk does a cow make in a day?	10 gallons	
2	Which mineral is naturally abundant in dairy milk and is essential for healthy bones?	Calcium	
3	True or False? If you're lactose intolerant, you can't drink any milk or eat dairy foods.	False. Milk and dairy foods have different amounts of lactose. Lactose-free milk has no lactose, and hard cheese and yogurt have low amounts of lactose.	
4	True or False? Milk is a food.	True! Milk is a drink and is also considered a food because of all the nutrition it provides.	



	Yogurt		
ı	What is the main ingredient used to make yogurt?	Milk	
2	Which ancient civilization is credited with discovering yogurt?	The ancient civilizations of the Middle East such as the Persians and Babylonians.	
3	Which type of microorganisms are often in yogurt and live in the digestive system too?	Probiotics	
4	What is the process called where bacteria are added to milk to make it into yogurt? Pasteurization, refrigeration or fermentation?	Fermentation – a process where bacteria turn a starch or sugar into an acid, which creates a new food by changing the texture and creating a tangy flavor	

- 2. Students watch "Making Cheese" (4 ½ minutes) and "How Is Yogurt Made" (3 minutes).
- 3. Students complete the video worksheet.

Lesson 3

- 1. Students complete a **Know, Wonder, Learn Table** using information from the following sources:
 - Read the article "The Science Behind Cooking with Dairy."
 - Watch the video "How Are Dairy Foods Enjoyed around the World?" (3 minutes)
 - View the web page **Explore California Dairy Diversity**

Lesson 4

1. Students read and complete the activities in the slide deck "How Can You Build Your Plate?" It includes the video "What Is Healthy Eating?" (2 ½ minutes), fast facts, writing prompts to explain understanding, and goal setting.









Lesson 5

- 1. Students create a mind map. Have student groups brainstorm and create a mind map connecting the dairy industry, sustainability, nutrition, culinary arts, and school meals. Encourage them to explore how these concepts can overlap and influence one another.
- 2. Students make a knowledge poster. On their own, students will create a paper or digital poster demonstrating their knowledge of the connections between the dairy industry, sustainability, nutrition, culinary arts, and school meals and how they contribute to a holistic understanding of the food system. Students do not need to tackle an entire lesson. Instead, select a couple of key points and craft visually appealing posters using vibrant colors, captivating text, and engaging images. Posters should be fun and educational for putting on school walls to inform, engage, and inspire peers.

of California for students and adults to improve eating patterns. For more information and additional resources, visit HealthyEating.org.